

ARMED FORCES INSTITUTE OF PATHOLOGY
ORAL HISTORY PROGRAM

SUBJECT: Dr. Charles J. Stahl
INTERVIEWER: Charles Stuart Kennedy
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Q: This is an interview with Dr. Charles J. Stahl, distinguished scientist of the Armed Forces Institute of Pathology. Dr. Stahl, we like to start these interviews off with getting an idea of where you came from. Could you tell me when and where you were born and something about your family.

DR. STAHL: I was born in Philadelphia, Pennsylvania, in the section of Germantown, on August the 5th of 1930. My father at that time was a banker and subsequently became a trust officer of the Northwestern National Bank, which is located in Philadelphia. My mother was a housewife. Both of them are of German-American background, because they have Germanic names, so I would consider myself a Pennsylvania German. My father originally lived in central Pennsylvania, near Pottsville, a place called Ashland.

Q: That's John O'Hara country.

DR. STAHL: That's right. And then moved to Philadelphia with his parents as a little boy. He was born in 1897, and my mother was born in 1903. We lived in the Germantown area for about four years, and then moved from there to a section of Delaware County known as Kirklin. Kirklin was at the junction of City Line Avenue and Westchester Place, which turned out to be the Main Line. We lived in a house, a single-family home. I have a sister, born about four years later, in 1934. At that time, I started going to school at a Quaker school, on City Line Avenue, which was Friends Central School in Overbrook, Pennsylvania, and attended that school until I was in the fourth grade.

Dr. Charles J. Stahl - page

We also had a summer place, which was a farm, in Montgomery County, Pennsylvania. We moved to that farm in 1939 and lived there until 1953. So I actually grew up in a farming area, which was a true Pennsylvania Dutch area, where the people still spoke Pennsylvania German. They communicated that way. Many of the school children who entered first grade couldn't speak English at that time. And in fact, the school had just consolidated a township school from one-room schoolhouses about four years before I started.

Q: Did you learn to speak Pennsylvania Dutch?

DR. STAHL: No, I didn't, because as time went on, the children no longer spoke it at home, and the older people were the main people who spoke Pennsylvania Dutch.

Q: You graduated from high school when?

DR. STAHL: In 1948. We actually graduated from grade school. In those days, in 1944, we had a graduation ceremony from grade school, because a lot of the boys went to work on farms and they didn't go to high school. I would say that out of our elementary school class, probably about a third stopped going to school at that time and went to work on a farm.

Q: You graduated from high school in 1948. Sometimes people catch the bug to get into the medical profession early on. Did that happen to you?

DR. STAHL: Yes, I was involved for a number of years with the Boy Scouts, which are very active in that area. I became the first Eagle Scout in our town, which was Harleysville, Pennsylvania. Ultimately, I became the assistant scout master, a merit badge counselor, provisional leader at the council camp, which was located in Sudleytown, Pennsylvania, called Valley Forge Council Camp Delmont. As a result of

Dr. Charles J. Stahl - page

this interest in first aid and other types of things dealing with health and safety, I did develop an interest in medicine.

And this was fostered by our family physician, who had graduated from Honnoman Medical College in the late 1930s and had gone into the Army in 1941, remained on active duty until 1945, when he returned to Harleysville as the town physician. So we knew each other, and he fostered my interest in medicine.

Q: Well, you went off to college then in 1948. Did you start a pre-med program at that time?

DR. STAHL: Yes, I was a pre-med student at Ursinus College in Collegeville, Pennsylvania. The course consisted mainly of courses in biology and chemistry, with a certain number of required courses that everybody took. We all had to take languages; we all had to take math, English, history, economics, courses of that type. But the major courses were chemistry and biology.

Q: Was this a major element of Ursinus at that time?

DR. STAHL: Ursinus was an interesting college. It had a Navy V-12 Program during World War II. And this was an input for physicians going into medical school.

Q: For the record, the V-12 Program was a hurry-up course to bring people into the Navy as officers, in one way or another.

DR. STAHL: Yes, that's right. But many of those people in that V-12 Program also went to medical school and became Navy doctors. Some of the professors were there on active duty as instructors in that program, and after 1945, they remained as professors at the college.

The college was rather interesting. It was known for two things; it was known for pre-med and women's phys ed. They didn't seem to combine, but many of the women were experts in field hockey, and some

Dr. Charles J. Stahl - page

of them later on became members of the Olympic teams or became professors at other colleges.

During my first year, we had about 300 students. It was a small college, about 1,200 total people, and 200 out of the 300 students were pre-med. By the time we graduated four years later, about 12 of us went to medical school. One went to osteopathy college, one became a veterinarian, and one became a dentist. So we had about 16 out of 200 going on to graduate schools.

Q: What happened? Why the falloff?

DR. STAHL: Well, it's not an easy program, and people lost interest generally after the first or second year and switched to some other field.

Q: Graduating in 1952, it was still the Korean War. And also, you grew up in what you might call the military age. Almost everybody, whether it was your older brother or older cousin or something, had served in the military. Did this sort of point you towards the military, or was it just the government that pointed you towards the military?

DR. STAHL: No, at that time, there was an active draft. If you went to college, you might be deferred, but it wasn't necessary, depending on your home draft board. You would not be deferred if you failed in your courses and were dismissed from college. You would be drafted. If you were in an essential career field, such as pre-med, and did this successfully, you were generally deferred.

As soon as I graduated, I looked towards military programs to see what was available. Of course, I was accepted to medical school at the end of my junior year, so I knew, when I was in my senior year, that I was going to medical school that next summer.

In May of 1953, I was commissioned as an ensign in the Navy, and served on active duty during the summers until I went on permanent

Dr. Charles J. Stahl - page

active duty November, 1955, during my last year of medical school. When I graduated in 1956, I was promoted to lieutenant junior grade and became a Naval intern.

Q: What pointed you towards the Navy? At that time, we had a separate Air Force, just fairly new, and, obviously, a separate Army.

DR. STAHL: I think its association with Ursinus College was one factor. Secondly, it was one of the areas in Philadelphia that had the most attention. The Philadelphia Naval Base at that time was quite large. And we had a large Naval hospital in Philadelphia, which at that time had 1,000 beds active. It was larger than Bethesda and many other military hospitals. Valley Forge Hospital was also active in the Army. But the Philadelphia Naval Hospital was a premier hospital, a major teaching hospital, and had an excellent staff at that time.

Q: What did you do in these part-time times during the summers as an ensign?

DR. STAHL: I went on active duty. Most of us think of going on active duty for two weeks active duty for training. But in this special program for medical students (again, I was one of the first people to go into this program, which was brand new), we went on active duty for long periods of time.

One summer, I spent the entire summer on active duty. I was assigned varying responsibilities. In one case, I was assigned responsibility for a surgical ward, under the supervision of one of the staff surgeons. So I essentially functioned as an extern and admitted patients, wrote up histories and physicals, assisted in the operating room with surgery. We did the same thing in pediatrics and OB/GYN, internal medicine, and pathology. During that summer, I had some exposure to pathology for a couple of weeks, and it was sort of interesting.

After my sophomore year, I went back again, and I had, I believe, 60 days plus two weeks of active duty for training. Some of this time I spent in psychiatry, but the balance I spent in pathology. And that, again, fostered my interest in the field of pathology.

Q: Where did you go to medical college?

DR. STAHL: Jefferson Medical College, in Philadelphia. And this was before the days when it was a university. Jefferson Medical College is now part of Thomas Jefferson University. The college itself had been founded in the early 1800s, and it's one of the oldest medical colleges in the United States.

Q: Was there a hospital attached to it?

DR. STAHL: Yes. Jefferson Hospital is a very large Philadelphia hospital.

Q: When did you finish there?

DR. STAHL: Nineteen fifty-six.

Q: In between, on a personal note, I note you got married, didn't you?

DR. STAHL: Yes, I did.

Q: Did you meet somebody from still within the Pennsylvania area?

DR. STAHL: Yes, my wife is a nurse. She's from northeastern Pennsylvania, the mining area, Wilkes-Barre. She went to nursing school at Jefferson and was working in that area, and that's where we met. She graduated from the school of nursing in 1950, and we were married in 1954.

Q: At Jefferson Medical College, was there any push towards pathology, or, as far as the school was concerned, was this just one branch? Or was there some mentor who might have gotten you off on that?

DR. STAHL: I think that the interest in pathology was unusual at that school. Peter A. Hurbert M.D., who was the chairman and professor of pathology, had written the textbook that we used. And we had an excellent course during the second year. So that was the first interest. His faculty were also very good and gave very excellent lectures. They were oriented towards the practical aspects of pathology, not research, so we were talking about things that really happened in hospitals as compared to research activities. Furthermore, it was very unusual for a medical school to have a course in surgical pathology, later on, during your fourth year, which we had. And, again, he had written a textbook on surgical pathology, which we used. This then correlated with our experiences as medical students in clinical rotations on surgery, so that you could correlate both the clinical aspects and the pathologic aspects of disease.

This interest was rather strong. And we had a number of people who went into pathology from my medical school class. If you pick a class now, maybe one percent of people go on to pathology. It's very, very low. But we probably had about 12 people start in pathology out of a class of 160, which was much higher than usual.

Q: So you finished there in 1956, and then where to?

DR. STAHL: In 1956, I went into the Navy. Remember, I was commissioned as an ensign in 1953. And I, again, was one of the first people in a new program, which started in 1955. I was actually on active duty in the Navy in 1955, as a senior in medical school.

Q: What was the program called?

DR. STAHL: It was the Ensign 1955 Senior Medical Student Program.

Dr. Charles J. Stahl - page

Q: I was just wondering. I've heard here in other interviews about the Berry Program.

DR. STAHL: No, no, this was different.

The Berry Plan was a different program, which was implemented by the assistant secretary of defense for health affairs (I'm not sure what his title was in those days), to defer people who were in residency training in areas of interest to the services. So they would bring them in after completion of their residency training program.

But this was totally different. This was a Navy program, where you'd come on active duty in your senior year.

Q: Well, then, in 1956, what did the Navy do with you?

DR. STAHL: Then I became a Naval intern. In those days, we had general rotating internships. Everybody rotated through the same type of program, which included every field of medicine at a naval Hospital. In Pennsylvania, it was also mandatory to have six weeks of pathology. That was a mandatory part of the internship.

Q: This was unusual for a state?

DR. STAHL: Yes, it's sort of unusual, because most states didn't require that. So, once again, I'm back in pathology. During the year, I rotated through medicine, surgery, pediatrics, OB/GYN, and pathology, as well as other fields of medicine and surgery. It was a very interesting experience.

Q: Were you beginning to fix on pathology, or was this just a sideline?

DR. STAHL: No, I was beginning to fix, because a decision had to be made.

Now something happened in the 1954 to '55 period that also impacted on what happened. Most people who finished internships at that time had to take a utilization tour somewhere, either aboard a ship or with the Marines or at some small Naval hospital or clinic.

But, in the 1954-55 period, there was a rumor that all dependent care was going to be discontinued in the services. As a result of that, the Navy had large numbers of retirements and resignations that year, which then created a deficit in specialists. I can remember that the chief of pathology, the assistant chief of pathology, the chief of OB/GYN, the chief of pediatrics, as well as numerous other people, either retired or resigned during that period. Throughout the Navy, I believe between 500 and 700 people left very abruptly.

But the rumor was not true. Nevertheless, there was a deficit. So we had the unique experience that all of the interns in my group were accepted for residencies at the Naval Hospital, Philadelphia, and remained there to complete the residencies.

Q: From '57 to '61, you were at the U.S. Navy Hospital in Philadelphia. There, did you have to specialize?

DR. STAHL: The residency program in most military hospitals, even today, is a program in anatomic pathology and clinical pathology. So, during the five-year period, which includes your internship (or, these days, includes an additional year that may be clinical or related to pathology, so it's a five-year program), we rotated between the fields of anatomic pathology and clinical pathology. At the end, we were eligible to take the examinations given by the American Board of Pathology in anatomic pathology and clinical pathology.

Q: Could you explain, for the laymen who will be looking at this at some point, what was the difference, at that time, between anatomic and clinical pathology.

DR. STAHL: Anatomic pathology, at that time, consisted of surgical pathology, autopsy pathology, and cytopathology. Electron microscopy was just starting. Most hospitals didn't have an electron microscope; most pathologists knew nothing about it. In Philadelphia, at that time, there was only one in the entire city. And cytopathology was also developing. It was mainly vaginal cytology rather than aspirates from the stomach or other sites. And fine-needle biopsy aspiration was unknown, was not done at all.

During my residency, since it was in Philadelphia, we had a unique experience. I think it was a very interesting and unique residency because we had affiliations not only with our own primary hospital, Philadelphia Naval Hospital, but also with the University of Pennsylvania, Honnoman, Jefferson, and Temple. So we rotated among these hospitals for certain purposes.

If we look at clinical pathology, on the other hand, which is the other field of pathology, this includes blood banking, microbiology, clinical chemistry, urinalysis, and other fields that are more clinically oriented. This is the section of a laboratory that does all of the clinical laboratory tests.

Now the rotations that I mentioned as being rather interesting included a time with Irina Kaprowska at Honnoman, who was one of the people who had trained with Papanicolaou and had developed the cytologic methods for examination of cells.

Q: This is the Pap smear.

DR. STAHL: The Pap smear, right. So she had trained with Papanicolaou, and she had developed the program at Honnoman. And we rotated under her for training. Her husband, Hilary Kaprowski, was director of the Wistar Institute at the University of Pennsylvania. So both of them were rather eminent people in their respective fields.

The other interesting area, we rotated back to Jefferson for hematology. We not only learned laboratory methods in hematology with the Cardeza Foundation, but we also assumed responsibility for the care

of patients. Every third night, we worked and covered the entire hospital, private service, the ward services, and the emergency room, for hematology patients, including all of the patients referred in with problems in hemophilia. So it was a unique experience that many pathologists don't get, actually doing clinical work.

Q: Dealing with all this pathology, what were you hearing about the Armed Forces Institute of Pathology? I think it was the Armed Forces Institute of Pathology by that time, the early '60s.

DR. STAHL: Well, it actually had started in 1949 as the AFIP, and had evolved from the Army Institute of Pathology at that time.

During our residency in pathology, we attended many of the short courses in continuing education given at the AFIP. Among these courses was a course in forensic pathology. I had never heard of the field; I didn't even know there was such a field. But there was a one-week course at that time, and I thought it was rather interesting. There were also courses in research methods, histochemistry, ophthalmic pathology, and other fields that we took as residents. So, during a four-year period, we attended one or two of these courses every year, usually at our own expense. There were no TDY funds in those days. So we drove down from Philadelphia and rented a room, usually on Fern Street. In those days, there were rooms for rent for about five dollars a night. And you could park your car on Fern Street without getting a ticket. And we walked across to the AFIP to take the course in Dart Auditorium. But we paid all this on our own; there were no TDY funds for this. So we were given permissive TDY orders from the Navy.

This fostered my interest in this unusual field. That seemed to be a little bit different, because we were getting cases also at the naval hospital that included aircraft accidents, helicopter accidents, airship accidents out of Lakehurst, New Jersey. In fact, I did the cases for the last naval airship accident that occurred out of Lakehurst. This sort of bolstered my interest in forensic pathology,

and I thought this was the field that is most related to military medicine.

Q: Could you describe, again using the time, what is forensic pathology?

DR. STAHL: Forensic pathology is that special field of pathology, a subspecialty of pathology, that applies scientific methods in the investigation of crimes and violent deaths, hazards to health, in the interest of justice. It is a field that uses methods that you learn in pathology, but applies them to events that impact upon the welfare of people in a community or an environment. Essentially, it's a study of the interaction between man and his environment. This is what seems to be most related to activities in military service, where you consider that there are certain occupational hazards we all face, dealing with special equipment, weapons, aircraft, ships. And the more you know about how to deal with them, the safer it will be for military personnel.

Q: So you spent about two years as a sort of an out-of-country experience, when you completed your studies at the naval Hospital.

DR. STAHL: No, I stayed on there an additional year as the assistant pathologist. I was now on the staff at Philadelphia and participated in the service functions as a pathologist and also in training functions for Navy medical laboratory technicians. We had a school. And some training for our first-year and second-year residents.

Q: Then you left and went to Guam, is that right?

DR. STAHL: No, I came here. I came here. During my last year of residency, I was interested enough in forensic pathology to apply for the residency. I thought there was a residency here, but it turned out the residency had not been approved yet. This was in 1961, and I was

Dr. Charles J. Stahl - page

disapproved by the Navy for this program. So I reapplied the following year, and I found out that the residency would have been approved in June of 1962. And I started the program in July of 1962. So I was the first person in the formal residency in forensic pathology at the Armed Forces Institute of Pathology, and the first Navy person to enter this field.

Q: Could you describe, because this is an oral history concerned with the AFIP, how you saw the AFIP? I'm talking more about the atmosphere, the administration and all, and what the AFIP was doing in 1962.

DR. STAHL: If you look back at the original dedication ceremony for the AFIP, the president at that time was Dwight Eisenhower, and he gave the address that essentially established the AFIP. And most of the things they talked about were things that interfaced with military medicine. So the emphasis was on the interface between military medicine and pathology. So, instead of talking about surgical pathology, they talked about aviation, and they talked about things that impacted on soldiers and sailors. As the Institute evolved, of course, interests changed, but some of the early directors, including Col. Townsend and, later, Gen. Blumberg, recognized that this was a very important area that needed to be fostered and developed. When Col. Townsend was the director, and remember, Col. Townsend is now a representative to our Board of Governors as a former director...

Q: He was an Air Force officer.

DR. STAHL: And Air Force officer. He recognized the interest in learning more about aviation safety, and established a branch called Aviation and Forensic Pathology. Later, that evolved into an aviation pathology branch, a forensic pathology branch, and a toxicology branch, and subsequently expanded even further into a wound ballistics branch. And these were all part of a division called Military Environmental

Pathology Division, because, again, it's the study of the interaction between man and his environment in a military setting.

We had relatively few people in forensic pathology in those days. Col. Ed Johnston was in the Army. Lt. Col. Pierre Fink, who later became a colonel, was also in the Army. Major Frank Keel, who later became a colonel, was one of the early people who had been trained in forensic pathology and became board certified. And there were a number of people in aerospace pathology who were pathologists and flight surgeons. But there were relatively few forensic pathologists in the service in those days, and most were in the Army. As I pointed out, I was the first person in the Navy to become a forensic pathologist. And I can't remember anybody in the Air Force at that time.

Q: What about the space program, which was just starting to get going?

DR. STAHL: I had done some work when I was in Philadelphia for the people in Johnstown who were involved in Project Mercury. And the Institute had done some work, particularly in veterinary pathology, when some of the non-human people were shot up into space, like the monkeys. But as time went on, this Military Environmental Pathology Division changed some of the branch names to Aerospace Pathology, Forensic Pathology, Toxicology, and so forth. Later, this whole area expanded, during the period of 1965 to 1975, when I was here again, into a Department of Forensic Sciences, which included not only those areas of pathology, but also legal medicine. Legal medicine was part of our group at that time.

So I was here for one year, from 1962 to 1963, as a resident in forensic pathology.

Q: Was there any particular area you were specializing in?

DR. STAHL: No, the residency program includes several components that are mandatory. First, you need to get exposure with medical-legal autopsies. I had done a number of them at Philadelphia. But our

Dr. Charles J. Stahl - page

primary affiliation here was with the Office of the Chief Medical Examiner of the State of Maryland, in Baltimore. So we affiliated with that office.

In addition to that, I was appointed as an approved pathologist for the State of Maryland, and I did all of the cases in Montgomery County. So, during the year, if a homicide or suicide or accidental death occurred in Montgomery County, I would be called, usually at nighttime. I would not do these during duty hours, I would do the cases during off-duty hours, at either a local funeral home or a local hospital.

Q: Usually these are political appointments, in some places.

DR. STAHL: No.

Q: Or Civil Service or something like that.

DR. STAHL: Well, in this case, this appointment was based upon the authorization of the chief medical examiner for the state, so he was the one who made the appointment. And this was an appointment that was solely related to training; it was not a salaried position or anything.

Q: Were there any people you looked upon as your mentors here at the AFIP?

DR. STAHL: People who were the mentors here were, first, Ed Johnston, who was the original chief of the Military Environmental Pathology Division. I worked closely with him.

Frank Keel, who was one of the early people in training. Frank was an interesting pathologist. He lives in Texas now; we still correspond with each other. He became an Army colonel. He's an M.D. He also got a law degree; he's a J.D. He became qualified as a paratrooper, qualified as a flight surgeon, and had sort of a varied career background during his tenure in the Army.

Dr. Charles J. Stahl - page

Lt. Col. Pierre Fink, who at that time was chief of the Wound Ballistics Branch, is well-known for his participation in the John Kennedy case, with Humes and Boswell at Bethesda. Subsequently, he became a colonel. He was one of the early commanders of the 9th Med Lab in Vietnam. He retired from the Army about 1975, and he lives in Europe at the present time.

Gen. Blumberg I would consider as someone who fostered forensic pathology. He became board certified in forensic pathology, based on prior experience, and supported this area significantly.

And Col. Townsend, of course, with his interest in aerospace pathology.

Q: Did you have the feeling that some of the results of what you and others in that field were doing was having an effect on the design of equipment, airplanes, tanks, etc.? Was there an actual connect? Sometimes you have this, but there isn't a connect with the designers.

DR. STAHL: No, there was an impact. Of course, in government, things don't happen overnight. It's usually slow.

One of the things I did, early in my career, was to recognize that when there is a military event--a homicide or unexpected death of some sort--and there's a military investigation, particularly when I was at Philadelphia, we would be asked to perform a postmortem examination and give an opinion about the cause and the manner of death, but were told, "We can't tell you what happened." Well, that's not the way to do things. You need to correlate investigative information with postmortem findings and the results of toxicologic and other types of studies. So I worked with the Navy and we changed the Naval regulations. We changed the manual of the medical department; we changed the JAG manual to require interchange of information between the investigator and the pathologist in those cases that were under investigation. And that's continued ever since. It took about two years to do it, but it was done.

Q: What was the theory behind not telling you? That if you were operating in a vacuum, this would give a more unbiased report?

DR. STAHL: I don't really know, and nobody really could tell me, because it had been a regulation for years. It was a passive regulation: it didn't allow for interchange, but it didn't prohibit it. Consequently, people simply didn't provide that information. That, I think, was significant in the Navy.

Now as far as the other matters were concerned, many of the cases that we saw resulted in either educational programs or publications that helped to prevent these types of deaths in the future.

One area of interest that I had was toxic hazards in a closed environment. We found that sailors aboard ship were using a solvent called 111 trichloroethane, pouring it into a bucket, getting a mop or some sort of a swab, and using it as a degreasing agent to clean shipboard spaces. Consequently, since they were aboard a ship where spaces are closed, the fumes from this killed them. So we had a number of shipboard deaths of sailors using this degreasing agent. That information was published in *U.S. Naval Medicine*, distributed back through the Navy, and the number of those deaths declined, based on the knowledge that this is a dangerous agent.

We had the same thing in the Air Force, with missile silos. People were lowered into missile silos to clean the sides and degrease them, using solvents. And in one case I can remember, three people died at the same time, because they didn't realize that the vapors from this toxic agent settled to the bottom of the silo. Two rescuers went down to rescue the first person, who had fallen off of a bosun's chair, and they both died, too. So that information was disseminated.

Some of the aviation-safety recommendations were based upon crashes that occurred involving military personnel. They found that rearward-facing seats would prevent injuries, and recommended that military aircraft have rearward-facing seats. However, as you can see, it's not very acceptable--people don't like to fly backwards. And even

though it does prevent injuries, it was really never widely accepted. It's certainly not accepted in commercial transportation.

We used to investigate commercial crashes, too. We had an agreement with the National Transportation Safety Board to investigate civil-aircraft accidents. And we also had a team to investigate general-aviation accidents, at one time. So we're talking about small aircraft as well as airliners. When you enter an airplane these days, the first thing you hear about are the safety requirements. The stewardess or the flight attendants will tell you where to get out of the aircraft, where's the nearest exit, tell you about the lighting. All of these things evolved from some of the work done at the AFIP.

One of the crashes we had, which occurred near Richmond, Virginia, in the 1960s, involved a military contractor. The people all queued up at the main entrance--they didn't know where to get out--and consequently, they all died. Even though they had not died as a result of impact injuries, they were exposed to carbon monoxide and then, later, fire. But they all queued up at the main exit to the aircraft, because they didn't know there were alternatives. That's one important thing.

Secondly, in some of the aircraft accidents, people couldn't find their way out. They didn't know how to get out, because they couldn't see their way. Now you see emergency lights.

So some of these things came as a result of work done at the AFIP.

During Vietnam, we found that many of the people in helicopters, who were shot from below, died as a result of wounds involving the lower extremities or buttocks. The helicopters were not armored. We recommended that armor plating be put in the areas for pilots and co-pilots. The same thing with fuel tanks, because the fuel tanks were being hit. And they were modified.

So a number of these things did result in improvements in aviation safety.

Q: To move on a bit, you did spend about two years on Guam?

Dr. Charles J. Stahl - page

DR. STAHL: Spent two years in Guam. Guam is an interesting place. It's our westernmost part of the United States. People don't always realize that, under the Organic Act of 1950, it became a U.S. territory, similar to Hawaii or Puerto Rico. The Guamanians are very patriotic people; many of the people served in the armed forces. They have evolved from a group known as the Chamorro, so they have their own culture. They're rather interesting. It's an island that was visited by Magellan in 1521. Of course, we occupied the island after the Spanish-American War. One of the first people to go to Guam was a naval officer, who was sent from the Philippines to take a look at this place that we occupied after the Spanish-American War. And he wrote a very good description of the flora and fauna of Guam. This was a line officer in the Navy, who later became the naval governor of Guam. During World War II, Guam was captured by the Japanese, and remained occupied until 1944.

Q: Actually, today is the fiftieth anniversary of the American invasion to retake Guam and the other islands in that area.

DR. STAHL: So, in 1944, we took it back again. There was one sailor who stayed on Guam, by the name of George Tweed, and he hid in a cave that we used to go to periodically. Most of the people these days don't know where that cave is. But he lived in a cave that was towards the north end of the island, in the region not far from Anderson Air Force Base, which is a SAC base. There are some interesting stories about him, and there's also a book and a movie, which talks about George Tweed.

My role there was as chief of a laboratory service. I also was appointed, with the consent of my commanding officer, as the deputy medical examiner for Guam. So I continued to do not only hospital pathology, but also forensic pathology. I had many collateral duties. Most of the committees and boards and other collateral duties were also

assigned to me. I was a photography officer and an environmental health officer and so forth and so on.

If something happened on Guam, the division of labor as far as forensic pathology was concerned was, if you were eligible for care in the military service, you then came under the jurisdiction of the deputy medical examiner--that was me. If you were eligible for care at Guam Memorial Hospital, the civilian hospital, then the medical examiner for Guam took that jurisdiction. It turned out that the split was about fifty-fifty, because the people eligible for care at our hospital included all military personnel, all Civil Service personnel, Pan American Airways, Cuomo Stares, the Bishop of Guam, and a few other categories I can't remember. So, large numbers of people, about half of the population, were eligible for care at our hospital. Consequently, whenever anything happened, I would be called and would go to the scene of death and investigate with either the military investigative agencies or the Guam police. Then we would do the post-mortem examination toxicologic studies, some of the criminalistic studies, or get them done through the U.S. Army Crime Laboratory at Camp Zama. And if there was a trial or a court martial, I would go to court and testify. So this experience continued during the time I was on Guam.

Q: You returned, then, back to the AFIP, where you were to serve from '65 to '75. Was this at your request, or was it a military assignment? How did this come about?

DR. STAHL: No, it was a Navy assignment. You have an Officer Preference sheet. At least there was an Officer Preference sheet in those days, where you could select areas of choice. And generally, if you'd had an overseas' tour somewhere, you were given preference. In this case, since I had fulfilled the qualifications (I was board certified now in anatomic pathology, clinical pathology, and forensic pathology), one of my preferences was to come back to the AFIP. And I was assigned as the chief of forensic pathology.

Dr. Charles J. Stahl - page

I arrived here at a time when most of the people that I mentioned previously had gone. Major Keel had been promoted; I think he was a lieutenant colonel then. He was in Vietnam. Col. Johnston had gone to Thailand. He went to the SEATO Laboratory in Thailand.

I had one officer on my staff, Bruce Young, who was a Military Police officer. At that time, he was a major, but later became a colonel in the Military Police Corps. I had a secretary, and a yeoman was also assigned.

Since everybody had left and there was no fill-in, there was a backlog of cases. There were cases piled up all over the place. I think that particular year I did something like 900 cases myself. There was no one else to do it.

We had two programs, a residency program, which was not filled. No one was in the residency since I left. They also had an Army fellowship in forensic medicine. That was for Military Police officers, CID agents, JAG officers, and Medical Service Corps or Medical Corps officers who were interested in forensic medicine. That was established, but no one had ever been in that program. During that period, I don't remember the exact year, but it was either '66 to '67, or '67 to '68, we had two officers come into that program. One was Tom Nap, who was a JAG officer, and the other was Roy Hazelwood, who was a Military Police Corps officer.

That program subsequently evolved into a more formal program through an arrangement with George Washington University. Again, we established a first at that time by negotiating an agreement with George Washington University that if a military officer from any service and from any of these branches met the criteria for acceptance by the university in the Master of Forensic Science program, they would accept up to ten officers per year, at no cost to the government, at no cost to the officer. And in return, we would provide faculty support to them with a faculty appointment, at no cost to the university. So it was a trade-off of teaching versus training.

Q: You mentioned that you had a JAG officer and a Military Police officer. What functions did they perform? Were they medically qualified? How did this work?

DR. STAHL: Two people were in training. Physicians become familiar with the legal aspects of medicine. We wanted them, as lawyers and as investigators, to become familiar with medicine and pathology and the pathologic aspects of investigations, so that they could interface better with our pathologists in the field, and become familiar with medical terminology and familiar with scientific methods.

Q: For you, I'm thinking, you've got 900 cases or even more, a tremendous backlog, when you arrived there. You have people coming in who are not going to really be able to assist you in making the determination on these cases, because it's medical. This is another added burden. It's worthwhile and all that, but...

DR. STAHL: This was one to two years later, so it didn't occur at the same time. When I arrived here in '65, that's when I had the backlog, and we didn't have trainees at that time. So I had a little gap.

Q: When you arrived, did you see a problem (and this keeps recurring in looking at the history of the AFIP) because too much was coming in and not enough was going out? That it was very spotty--some of the branches or divisions were either better staffed or they worked faster; others were more deliberate and all this. Did you sense an unevenness in how the AFIP was responding?

DR. STAHL: Yes. The military services have had a tri-service, or joint service, regulation ever since the AFIP was established that requires them to send in certain cases. In those days, if you were at a naval hospital or an Army hospital, there were certain types of cases that you always sent to the AFIP.

For example, when I was at Philadelphia, we sent all of our autopsies to the AFIP, and we sent the majority of our surgicals to the AFIP, which involved either unusual diagnoses or tumors. And we received reports from the AFIP in a timely manner. I mean, we're not talking about waiting for months, but we received reports in a timely manner.

Over the years, many of the service hospitals failed to comply with these joint regulations, so that the number of cases from military hospitals declined, and the number of cases from civilian hospitals seemed to be predominant. I think, right now, there is probably an equal distribution between both.

But, at that time, there were parts of the Institute that responded very slowly to field requests for support; others responded very promptly. There was a discrepancy, and there was discrepancy in staffing also.

Q: When you first arrived, Joe Blumberg was the commanding officer.

DR. STAHL: When I was a resident here...

Q: I'm talking about the second time. General Blumberg, in these interviews, has got quite a reputation of being rather a ball of fire, a really dynamic person. Could you describe how he, as you saw him at that time, operated?

DR. STAHL: He had rather broad experience in the Army before he came here, and was already recognized as a pathologist who had many diverse interests. He not only had an interest in forensic pathology, but he had also an interest in fostering the international reputation of the AFIP, and gaining support from many of our federal agencies. He had a lot of charisma, so he could interface with people very well. He traveled fairly extensively in making contacts, not only within the United States, but also overseas. He was the type of fellow who would just drop by your office, as we're doing here, sit down and chat with

Dr. Charles J. Stahl - page

you and ask what you're doing and ask how things are. He would do the same thing with other employees throughout the Institute. He had a genuine interest in trying to improve the Institute and its relationships with both the military community and the civilian community. So he was a rather dynamic individual.

Q: He was followed by Bruce Smith, who was a Navy captain. And here you were a naval officer. Did that help at all?

DR. STAHL: We knew each other. He had been chief of service at Philadelphia when I was there. His interest was mainly in surgical pathology. He had been, at one time, aboard a ship early in his career, in the Pacific area. But, subsequently, all of his assignments had been related to pathology, at Mare Island, California, and later, Philadelphia, and then here at the AFIP. When he retired from the AFIP, he went on to become the chief of pathology at the VA Medical Center of Washington. And he just retired from that position about two years ago.

Q: And, sort of to keep it moving, Col. Morrissey, of the Air Force, came. That was a rather short career. Things didn't work out. What was your impression of him?

DR. STAHL: Well, the impression is, Col. Morrissey recognized that the Institute is sort of a unique place. It has a very strong informal organization, as compared to the formal military organization. He felt that people were not conforming to the usual practices of a military organization. I think he ran up against the informal group.

Q: The old boys' network, eh?

DR. STAHL: When he left, he wrote a rather scathing report, which he passed on to the Air Force surgeon general, which then was passed back to the director of the AFIP. Nothing really came out of that, but he

Dr. Charles J. Stahl - page

had expressed his concerns of attempting to run this organization under his type of leadership.

Q: Did you have the feeling while you were here, you were here a good, solid ten years during this time, that each of the...what were they, were they divisions or branches?

DR. STAHL: They changed their names. Originally, these were branches, and several branches formed a division. And then, later on, they just changed the names from divisions to departments. And then the branches became divisions.

Q: Anyway, these basic components, one has the feeling it was a little bit like medieval Italy, each had its own strong dukedoms, where you might have an emperor, but the dukes pretty well ran their own thing, and at different paces. Was this very much the feeling?

DR. STAHL: Yes.

Q: Now were you running one of these yourself?

DR. STAHL: Yes, I was.

Q: Was this sort of as a junior member or a junior duke or something like this? How'd you find it then?

DR. STAHL: Well, I had been there less time than most others. On the other hand, I had very good relationships with other people, and I had no difficulty. In fact, our department, as I said, evolved from the Military Environmental Pathology Division to the Forensic Sciences Division to the Department of Forensic Sciences, over that ten-year period. We were the largest department in the Institute. We had not only divisions of forensic pathology, aerospace pathology, toxicology, accident pathology, underwater pathology, and legal medicine, but for a

Dr. Charles J. Stahl - page

while, tissue reactions to drugs was part of our group also, with Dr. Nelson Irey, for about a year. After 1976, then the department as we knew it started subdividing. Legal medicine became a separate department. Dr. Irey's group became a separate department. And, with the formation of the medical-examiner system, which occurred in the late 1980s, and the implementation of a Department of Defense directive in 1988, it became the Office of the Armed Forces Medical Examiner. So these original designations of divisions, branches, and so forth no longer exist.

Q: During the ten years you were here, '65 to '75, you had your routine work, but what were your main preoccupations, where you were doing more than sort of the normal work of a pathologist?

DR. STAHL: We developed an extensive educational program for not only pathologists in forensic pathology, but also for military investigators, for attorneys, and other officers who would participate with us later on when they finished and were assigned to field activities. Through this fellowship in forensic medicine, which later became the forensic sciences program at the masters'-degree level with George Washington University, we trained large numbers of people during the period that I was here. And many of these people have become prominent in their respective fields. For example, I mentioned Roy Hazelwood, a military police officer who later became an FBI agent and a supervisory special agent assigned to the FBI Academy. He was one of the people involved in the behavioral sciences unit that was pictured in the movie with Jody Foster.

Q: "Silence of the Lambs".

DR. STAHL: He worked with that unit for many years. He's written several textbooks, and he just retired this past year. So he is another who moved upward into a significant position. A military police officer who is now assistant inspector general for the

Dr. Charles J. Stahl - page

Department of Defense was one of our people. The deputy commanding officer for the Army Criminal Investigation Command, who just retired, was one of our graduates. So we have people throughout the government who have been affiliated with our program, either in forensic medicine, or forensic science.

As far as pathologists are concerned, we have a tri-service residency, the only tri-service residency.

Q: Tri-service means what?

DR. STAHL: Army, Navy, Air Force. We have trained essentially every active-duty forensic pathologist. There are a few who have come in from civilian life, but we have trained most of the active-duty forensic pathologists. They have become board certified. And we have a continuing input into that program. This year, we have one Army forensic pathology resident, who will go to Tripler Army Medical Center this summer and become one of our regional medical examiners. We will have two people coming into the program this summer, one from the Navy and one from the Army. So there is a continuing input; not a large number, but it's a viable program.

During those years, 1965 to 1975, many of the people who are now prominent in forensic pathology throughout the United States were either trained in our program, or were assigned to the Institute as Medical Corps officers, through the Berry Plan, or sometimes they were drafted and assigned here. So we have very prominent forensic pathologists all over the country who had their experience here at the AFIP.

Q: I would think this would also generate, for better or for worse, a lot of work for you, wouldn't it? Because if you have people who know what you can do and know the standards of the AFIP, then there would be a tendency of these people to say, "Well, let's send it to the AFIP and get a check on it."

DR. STAHL: Yes, that's very true, they will work with us very nicely. This forms a sort of network of people who know each other, who work together, who can consult with each other. It makes for a very nice environment.

Q: I keep going back to the timeframe that we're talking about, '65 to '75. Were there any particular types of forensic cases that you were dealing with that seemed to predominate? Obviously, this was the Vietnam War period, which also had all sorts of social implications, too, drugs, fragging attacks, all sorts of things.

DR. STAHL: We reviewed all of those cases. For example, the cases coming in from Vietnam including pungee sticks, fragging, assassinations, you name it.

Q: You might explain, pungee sticks were...

DR. STAHL: These were sharp sticks that were handmade and put in the ground, usually in a pit, and as people were walking through jungle area, they'd come to a concealed pit, fall into it, and were impaled on these pungee sticks.

Q: And fragging.

DR. STAHL: Fragging is throwing a hand grenade into somebody's tent or bunker, purposely, homicide.

Q: Were you sending people out to Vietnam to investigate these homicides? There were a lot of reports, towards the end of the war, of disgruntled soldiers tossing fragmentation grenades into officer bunkers and things like that.

DR. STAHL: As I mentioned, we had two forensic pathologists in Vietnam. First, Frank Kiel, who was assigned to the 406th Army Medical Laboratory, located at Camp Zama, Japan. He established the 406th

Dr. Charles J. Stahl - page

Mobile Laboratory in Vietnam, and remained there for at least a year. Then the Army established the 9th Medical Laboratory, and Col. Fink became the commanding officer of that laboratory. So we had forensic pathology representation in Vietnam as it started to escalate.

There were also Army pathologists, who later became forensic pathologists, assigned to the Wound Data and Munitions Effectiveness Team, known as WDMET, which collected data on scenarios related to firefights, to determine who was involved, the type of weapons involved, and also the types of casualties that resulted from these weapons. That data was collected and came to the AFIP for a while, and I understand that it remained here for a number of years and then went up to Edgewood, and now I think it's back at the Uniformed Services University. So it's a file of cases that involved battle scenarios.

Q: Were there any lessons that were learned or trends that came out of the Vietnam War, from your point of view, that were noted?

DR. STAHL: I think the main thing that people learned was that this was an unconventional war. That the methods used were often not typical, as compared to World War II and Korea, where many of the people died from fragment wounds from bombs and missiles and so forth. This was a war that involved bullets. People were often killed with bullets or unconventional weapons. For example, patrols of people were assaulted and then killed, and then often beheaded and left as they were found.

We had one case that involved Col. Fink, with some soldiers who kidnapped a Vietnamese girl and took her out on patrol with them, assaulted her, and then killed her before they returned to their base camp. The Army sent a CID agent into enemy territory to recover this body, which was subsequently identified and resulted in conviction of the soldiers who had committed this act.

Q: And a movie was made.

DR. STAHL: A movie was made from it, called "*Casualties of War*." And there was also a book written about it.

During that period, we were also involved in some training incidents that occurred in recruit-training camps, where there was some abuse of recruits, particularly in the Marine Corps. We brought that to the attention of the staff of the commandant of the Marine Corps, and they took action and corrected it. Again, this was not recognized by investigators, not recognized by physicians. In fact, there was an overt attempt by some of the drill sergeants to prevent recruits from seeking medical care after they had been physically abused by the drill sergeants.

Q: How did this come to your office's attention?

DR. STAHL: Again, these were cases that came in, from one source or another. During the review of these cases, which was either through a consultative review, or sometimes a very active review, we recognized that there was something that needed to be fixed, and we brought this to the attention of the proper authorities.

The other case we were involved in during that period of time was the case involving MacDonald at Fort Bragg.

Q: Oh, yes, this was called the Green Beret Case. Could you explain what this was.

DR. STAHL: Yes, this was an incident involving the homicide of the wife and children of an Army physician assigned to Special Forces, who alleged that some hippies came into his house, attacked him, and killed his family. Subsequently, it was determined that he was the person who committed these acts, and he was imprisoned for this. It caused many problems, because initially too many people entered the scene. It was not controlled well. He had apparently inflicted a wound upon himself, which was not recognized as a self-inflicted wound initially. There was a need to obtain certain physical evidence from him, and that

Dr. Charles J. Stahl - page

caused some embarrassment for the people who were attempting to collect this. They sort of had to pursue him with a car, and stop the car and obtain evidence. But it was a very difficult case for the Army to resolve.

Two other cases that were prominent during that time were the astronauts who died on the pod at Cape Kennedy, Grissom, White, and Chaffee. That was an interesting incident, where we did the cases. We were given short notice and flew down there as a team. The team included me, Ed Johnston, and Dr. Dunn, who was chief of aerospace pathology at that time. We arrived there and they said, "We can't tell you what happened. Just do the autopsies and leave."

And we said, "No, we're not going to do that. We expect to have some information about the circumstances. And we're going to do a complete forensic pathology investigation to determine the cause and the manner of the deaths."

We had to wait almost six hours before we completed these negotiations. There were phone calls back and forth to Houston and various other places. And finally they conceded that, yes, we could go ahead and do what we intended.

The original news reports indicated that these bodies were charred and so forth and so on. That this had been an explosive conflagration inside the capsule.

We learned first that some of the fabrics that they were using or wearing or that were inside the capsule emitted noxious fumes. So they showed levels of these noxious chemicals, like cyanide or carbon monoxide, which, of course, is a product of combustion. So they survived for a brief period of time. That was confirmed by listening to the tape, indicating there was a brief period of survival.

The other thing we found out was that a lot of attention was paid to equipment, but not too much to people. Even though three people were in this capsule, and it was in a test mode, the workmen had bolted a shield over the hatch. So, even if you could open the hatch, you couldn't get out. And there were no explosive devices to eliminate the shield in the event of a fire or other disaster. That changed the

Dr. Charles J. Stahl - page

course of the whole space program. Furthermore, the door itself was not a positive door, in the sense that you could just turn a switch and open the door. It required some manipulation of a door lock, to get it in the right position and then turn it, which, of course, took time to do.

As a result of this, several things happened. There were better door mechanisms. There were explosive devices on shields. The fabrics were changed so they did not give off fumes. And I think more attention was paid to people.

There is a book, which I haven't seen but my son told me about, called "*Mission to the Moon*." We did not release any findings anywhere except to NASA, and yet this book, "*Mission to the Moon*," contains the front pages from our reports. I don't know where they came from.

Q: How did you attribute this reluctance to let you do a full report? Was this just NASA being...

DR. STAHL: I think so.

Q: Were they concerned or was it just their turf?

DR. STAHL: I have no idea. I think it was mainly a turf battle.

Q: It so often happens.

DR. STAHL: The other case, of course, the following year, was Robert Kennedy.

Q: His assassination in Los Angeles.

DR. STAHL: Since the big issue was still brewing about the John F. Kennedy case, and real concern about adequacy of consultation and support, the chief medical examiner for Los Angeles called the director of the AFIP.

Q: The chief medical examiner's name is...?

DR. STAHL: Thomas T. Noguchi.

Q: He's become sort of famous--pathologist to the dead celebrities.

DR. STAHL: That's right, he's been known as the coroner to the stars. The office was called the Office of the Chief Medical Examiner/Coroner for the City and County of Los Angeles.

Of course, as forensic pathologists, which was a small community, we knew each other. In those days, there were probably less than 200 forensic pathologists in the United States, and we all knew each other. So he submitted a formal request to the director of the AFIP, who gained the appropriate approvals.

We were going to have the first international conference on accident pathology, in Washington, the following day. We were at a dinner at Walter Reed Officer's Club that evening, and I remember sitting in the lounge there, talking to some of the speakers for the next day's program, when we heard this news report.

I went home about 10 o'clock, and from that point on, until about 3:30 in the morning, I was getting a call about every hour, as arrangements were being made for us to leave. We left Andrews Air Force Base on an executive jet sometime around 5:00 in the morning, stopped for refueling at Offutt Air Force Base, landed at Los Angeles International Airport, were picked up by a helicopter, flown to the Hall of Justice, and then picked up by a detective, who took us to the hospital. We remained in California for several days.

Q: What was the purpose of having you there?

DR. STAHL: As consultants. Three of us went. I was chief of forensic pathology and assistant chief of the military environmental pathology division at that time. Col. Fink was chief of the military

Dr. Charles J. Stahl - page

environmental pathology division and chief of wound ballistics. And Dr. Kenneth Earle was chief of the neuropathology division. So we had three different types of people: neuropathology, wound ballistics, and forensic pathology.

Q: This was done with the cooperation of the coroner's office.

DR. STAHL: Yes, at the request of that office.

Q: The basic purpose was that, since there had been so much brouhaha about the assassination of John F. Kennedy (which goes on today, with an assassination industry of what could have happened), you'd learned your lesson and you wanted to get it rock solid. Was that it?

DR. STAHL: That's right. So we reviewed everything that had been done, and then continued and stayed there until all of the microscopic sections had been completed. They were reviewed. We reviewed the neuropathologic examination, reviewed all of the evidence that was obtained at the scene. We went back to the scene at the hotel. Dr. Noguchi and I went to the hotel the next day and again looked at the scene. Col. Fink coordinated the ballistic evidence with the FBI and the police department. And Dr. Earle worked with the neuropathologist. So that, as a team, we saw everything and participated in all of the examinations.

Q: I gather that, even despite the media attention and everything else, the final result has not been disputed.

DR. STAHL: No, no. There have been a couple of allegations that there were other people in that room, including a security guard, who were armed with a similar pistol, and they raised the issue that maybe he fired some shots. But this is all allegation. Somebody even produced a movie about that. I talked to the producer and saw the movie, and it's entertaining, but that's all I can say. It's not factual.

Q: To move on, looking at the AFIP as a whole, at that time, you'd moved off the Mall. Was the medical museum, per se, used much then or not?

DR. STAHL: When I first arrived here as a resident, I was, of course, rotating back and forth from Baltimore to the Institute. As I remember, when I came back from Baltimore in January of that year, we moved to the building at 7th and Independence Avenue.

Q: Ah, yes, the old red brick building.

DR. STAHL: So we made that move and we were there in the old red brick building. Prior to that, the museum had occupied temporary buildings, which, as I remember, were like quonset huts, on the Mall. The exhibits were moved back into the red brick building. Most of the people who were sent down there to that building were the military people, those branches and divisions that were more military-oriented. Elgin Cowart, who later became a director, was the director of the medical museum in those days. The thing that I remember most about it was its beautiful architecture. Interesting building, it had marble staircases, with fireplaces in some of the offices. Large numbers of people and tours who came to that building were excited about the exhibits; they liked them. Even though they were old exhibits that were not as modern as you might expect, they still enjoyed looking at those things. The attendance in those days was many times the attendance now. Now, we're located in a place that's remote, people can't get to it, they can't find parking, and they just don't come to the museum anymore.

Q: I remember going to that museum, back around '41, 42. It also was an inspiration for many people who went there; it was one of the things that got them interested in a medical career.

DR. STAHL: That's right.

Q: I talked to the present director of the museum in a recent interview, and it's really on course that it will once again arise on the Mall. What about the American Registry of Pathology. You had one part of this, didn't you?

DR. STAHL: Yes, I did.

Q: About '75, I think, there was a report that came out, there was a problem about how it was set up. Did this impact on you at all?

DR. STAHL: Not at that time. In the formative years of the Institute, it was recognized that the Institute could interface with civilian pathologists. Several registries were formed, and these became the American Registry of Pathology. They were based at the Institute. Each one had a registrar, who was a member of the staff. And some of them received very nominal support from a professional organization. For example, one of the early registries, established here in the 1950s, was the Registry of Forensic Pathology. The College of American Pathologists provided very nominal support for that registry in the early years. There was no other source of income. And you're not talking about large amounts of money; you're talking about perhaps two or three thousand dollars, once in a while, not every year. That was not given to the registrar, it was given to the registry, to help to offset costs of operating and producing products that could be distributed through the registry.

But, in 1976, after I left, Col. Hansen was the director, the Army director. The Army surgeon general became concerned about the relationships between the Registry and the Institute. There was sort of an admixture of personnel and funding, which he had difficulty sorting out. And I think, in that time, several groups came in and looked at the Institute: the inspector general, the Army Audit Agency, and so forth.

Initially, there was great fear that the Institute would be turned over to some other agency. But the end result actually was favorable, that they recognized that the American Registry of Pathology had some basis for its association with civilian pathology. And they established a law through Congress that enabled the American Registry of Pathology to continue in existence, and also to serve, in some respects, as a fiscal agent for the Institute, and to operate under the direction of the Institute and no one else.

Q: This also established the Institute as an established entity, which was no longer at the tolerance, you might say, of the armed forces. It stood on its own.

DR. STAHL: Well, it stood on its own, but it only serves the Institute. So the American Registry of Pathology only exists to serve the Armed Forces Institute of Pathology. It cannot enter into any ventures outside the Institute.

Q: In subsequent years, have you found that the American Registry is a useful entity?

DR. STAHL: It is best known for its products, and now, for its sponsorship of educational programs. Many of the continuing medical-education programs in the United States are sponsored by the AFIP and the American Registry of Pathology. And these educational programs are given not only at the AFIP, but also at other locations throughout the United States. Most people recognize this as a very important role for the AFIP to play.

Secondly, the tumor fascicles are products available through the Institute, generally at rather low cost, distributed worldwide, and used by almost every pathologist in the world.

Study sets are also a product distributed through the AFIP.

Q: These are slides and all, which people can use. Sort of self-teaching guides that are put out.

DR. STAHL: Yes, that's right.

Q: Because this is concentrated on the AFIP, I did want to get your early background. I thought we might move rather rapidly over the time that you were away from the AFIP. You were at Bethesda Naval Hospital...what do they call it?

DR. STAHL: The National Naval Medical Center.

Q: From '75 to '80. Then you were with the Tennessee Veterans' Administration up to '92. I would like to just talk a bit about the time at Bethesda. Why did you move over to Bethesda?

DR. STAHL: I was asked to become the chairman of the Department of Laboratory Medicine at the Naval Medical Center, which had several other additional duties. I was also appointed as the consultant in pathology to the surgeon general. I also was professor of pathology at the Uniformed Services University. I was director of the residency program in anatomic and clinical pathology. I was also director of our programs in medical technology and medical laboratory technique and histopathology technique. And this was through an additional duty I had with the Naval School of Health Sciences. So I had many different roles.

I essentially was responsible for operating and managing that department, which was, again, one of the largest departments at the Naval Medical Center, with a staff of about 150 people, about 50 students, and up to 12 residents in pathology at any one time.

The most difficult role was the management of all pathology programs. I was responsible for recommending the assignments of all pathologists, for determining staffing requirements for pathologists and our enlisted technical personnel, for allocating equipment to all

Dr. Charles J. Stahl - page

of our hospital laboratories, for recommending changes in training programs for the enlisted personnel, and also for monitoring the selection of residents for any pathology program. So it was a very, very busy period. I also represented the Navy as a member of the Scientific Advisory Board at the AFIP.

Q: I've had people on these various interviews say, "There's a right way, there's a wrong way, and the Navy way." The Navy does seem to do things differently than, say, the Army and the Air Force, which used to be together and have worked together. Did you find that the Navy was somewhat removed from using the AFIP, although it was a tri-service institute?

DR. STAHL: No, we used the AFIP quite extensively. Many of our consultants, particularly in neuropathology, were from the AFIP. When we had difficult or interesting cases, they were referred to the AFIP for consultation. Very often, our staff pathologist and residents would take cases over directly for consultation, which would later be accessioned into the files of the AFIP. So I think we had a very good relationship.

Remember that my department consisted of two major divisions: anatomic pathology and clinical pathology. And the chief of my anatomic pathology division was Captain Karnei, who later became a director of the AFIP. So we had a very close relationship there.

The other thing I did, I established at Bethesda the first tri-service residency program in hematopathology, for Army, Navy, and Air Force pathologists.

And the way I did that was unique. When I was an intern at Philadelphia, I met a resident, who was one year ahead of me, named Hal Shumacher. Hal Shumacher became a specialist in internal medicine in the Navy, and later became board certified in hematology and also oncology. So he had subspecialty boards in the field of internal medicine.

He left the Navy, after about 11 years, and went to Hershey, Pennsylvania, where he was associated with the development of the Hershey Medical School, and he worked in some of the hospitals around Harrisburg. But his interest shifted from clinical hematology to the laboratory applications of hematology, and he became an expert in the classification of leukemias and the use of the electron microscope in detection of certain hematologic disorders.

When he was in Harrisburg, one of his peers who knew him had just been promoted to rear admiral. It was a time when we had the title clinical admiral; these were clinicians who were promoted to rear admiral. And he asked Hal to come back to Bethesda, with the expectation that Hal would become the chief of hematology within the Department of Medicine.

In the meantime, our clinical admiral had been shifted to an administrative post somewhere else as a hospital commander. Hal Shumacher arrived at Bethesda, and no one knew why he was there, so he just simply got assigned as a staff person to hematology.

He and I talked, and what we decided to do was that if he was able to become board certified in the subspecialty of hematopathology, I would arrange for him to be shifted from the Department of Internal Medicine to the Department of Pathology, under me, and we would then establish a tri-service program.

And we did that within one year. We got this program approved by the Navy, the Accreditation Council of Graduate Medical Education, and the American Board of Pathology, and we had a program ongoing in about a year. That program has trained, again, most of the military pathologists in that field. So it's a unique first again.

Q: From 1980 to '92, you went with the Veterans' Administration, and then to the State of Tennessee, and then back to the Veterans' Administration. Why this move over there?

DR. STAHL: Well, this links with some of my experiences. During the period from 1975 to 1980, as one of my other additional duties, I was

Dr. Charles J. Stahl - page

the Navy representative to the Scientific Advisory Board of the AFIP. One of the people who was also on the Scientific Advisory Board was a professor from the University of Indiana. I'll get that intertwined a little bit later on, because he then becomes a player in why I moved from Tennessee to Ohio.

I went to Tennessee as the chief of laboratory service. The VA has different types of positions. They have full-time, part-time. I was part-time VA. Seven-eighths of my salary was VA; one-eighth was university professor of pathology. I developed a department of pathology that would interface with a medical school. I did that in three years. I changed from a department that had just provided nominal support to a hospital to one that became a full-service laboratory providing support to a medical school and the hospital.

But my interest related to forensic pathology, so I resigned from the VA and became a full-time professor at the medical school. I established the first medical-examiner's office for northeastern Tennessee, which served five counties, and I became the assistant chief medical examiner for the State of Tennessee, while I was serving as professor of pathology.

I also developed educational programs for the university. These were continuing medical-education programs that we opened to attorneys, investigators, and police officers. Many of our university educational programs in the fields of medicine, like pediatrics or cardiology, would attract 25 or 30 participants. I was able to bring in 100 people at a time who were interested. It made for a unique program, because we had a lot of interest in these things.

I also participated in educational programs for the Department of Criminal Justice and the State of Tennessee, as well as some of our professional organizations. And I also supported some teaching programs for the Office of the Chief Medical Examiner, Commonwealth of Virginia.

After being there for almost six years, I received a call from Ohio. The person calling happened to be the director of the hospital, who said that he had been talking to the dean at the medical school of

Wright State University. Well, the dean was the former professor from Indiana. They were looking for a chief of staff and wanted to know if I was interested. I didn't know anything about the place, so I went up and looked at it. It sounded like a challenging position. I would be chief of staff at the VA, a large teaching hospital with 1,400 patients and 2,000 employees, about half of whom would be under the jurisdiction of the chief of staff, and some teaching responsibilities for the medical school. So I accepted that position and remained there until 1991, when I had another call.

And this was a call from a person I used to know at Bethesda, Lou Mantel. Lou Mantel was a commander when I was at Bethesda. He was an anesthesiologist, and for a period of time, he was assigned to the Naval Medical Research Institute. But, subsequently, after I retired, he became a captain, and then he was promoted to rear admiral and became the deputy surgeon general. And with the change from the Veterans Administration to the Department of Veterans Affairs, with a Cabinet-level post as secretary, a new chief medical director arrived, and that was Jim Holsinger. Jim Holsinger and Lou Mantel had known each other because Jim Holsinger was a major general in the Army Reserve Medical Corps, assigned to the Pentagon and J-4 Joint Staff, where Lou Mantel was assigned on a permanent basis. So they got to know each other during these periods of active duty for training. And when Jim Holsinger became the chief medical director for the VA, he selected Lou Mantel as his medical inspector. Then I was invited to become the deputy medical inspector.

And I did that for almost two years when I was then invited to come to the AFIP as the Armed Forces Medical Examiner. So that's how all this evolved.

Q: All right, we're up to more or less now. You arrived here about 92ish?

DR. STAHL: October '92.

Q: What does the medical examiner's office do?

DR. STAHL: We have a Department of Defense directive and a joint regulation that authorizes the Armed Forces Medical Examiner to conduct investigations of deaths of active-duty personnel and persons on active duty for training, in areas of exclusive federal jurisdiction. We also have authority, under certain conditions, to conduct investigations of civilian personnel who may die in areas of exclusive federal jurisdiction. We can also participate in medical-legal investigations when the authority vested in a state medical examiner is waived and the case is deferred back to the military services.

The types of events that we get involved in include homicides on military bases. And I can just tell you that, during this past year, we have sent teams to Fort Bragg, to Fort Sill, to Fort Riley, to investigate homicides involving military personnel. We also get involved in most wartime activities. Before I arrived here, of course, Desert Storm was an example.

Q: This was a war against Iraq in the Persian Gulf during 1990 and 1991.

DR. STAHL: That's right. So our staff was involved there. Prior to that, they had been involved in the incidents in Panama, in Grenada, and various other places. So, as a group, we have probably more experience in major events and mass disasters. That includes, among the mass disasters, some of the major aircraft accidents. We also send teams out to investigate military aircraft accidents. And we only do this when there are no local resources available. Most recently, we not only did all of the cases from Somalia, but we also did all the cases related to the Iraq shoot down, where the two helicopters were shot down. We sent a team to Germany for a week to identify the people and determine the cause of death of those personnel.

Q: Sort of winding this up, where do you see the AFIP going? It's a new era. One of the themes that has run through some of these interviews is that the AFIP used to be a unique institution. It was the only one looking at things, and everybody turned to it. But now there are universities and teaching hospitals that have also developed parallel programs over a period of time, so that the AFIP does not stand alone in some things. Where do you see the AFIP developing?

DR. STAHL: I think we need to re-emphasize our military mission. I think that's very important. Many of the roles played by the Institute in the past are roles that have now been taken over by local universities, that's true. So there are other people who can perform consultative services in surgical pathology that perhaps are as good as, or similar to, those performed at the Institute. But our military mission and our federal mission, particularly in my field, is unique. There is no one else doing this.

I only described one area, one division out of six. I have six divisions in the Office of the Armed Forces Medical Examiner.

One is operations, and that's what I described to you.

Second is a division that interfaces with other federal agencies. We provide support, upon request, to the Department of Justice for several areas: environmental crimes, civil rights, public-safety-officer benefits, and those cases that are referred from the FBI. During the past year, we have been involved in several cases supporting the FBI. These included exhumations of people who had either been assassinated by criminals, or, in one civil-rights case, the allegation was that an officer had shot somebody in an improper way. So we provide that support.

We provide educational support to other agencies, the Federal Law Enforcement Training Center, the Department of Agriculture, and many of our police and investigative agencies.

The newest divisions are the DNA Registry, including the DNA Repository, which is collecting specimens from all military personnel on active duty and the Armed Forces DNA Identification Laboratory,

Dr. Charles J. Stahl - page

which conducts nuclear and mitochondrial DNA examinations, as well as the Special Investigations Division which consists of Forensic Anthropology and Trace Material Analysis Branches.

Q: This is designed to be a form of identification.

DR. STAHL: We also have the Division of Forensic Toxicology, which monitors and supports the quality assurance program, the Department of Defense Drug Abuse Control Program, provides forensic toxicology examinations, and develops new methods for the detection of drugs in biologic materials, including hair.

We have an Education and Research Division which supports our educational programs in forensic pathology, forensic science and continuing education.

And we also have, as part of our department, a ballistic range for research purposes. So it's a very extensive operation that interfaces not just with the Army, Navy, and Air Force, but with all branches of the federal government.

Q: Well, doctor, this has been a fascinating career, and I really appreciate this.

DR. STAHL: Well, thank you very much. I enjoyed talking to you.